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ABSTRACT

A review of the literature concerning the cooperative education movement brought into focus a number of key issues which helped direct the study effort. Based on that review, the purpose of the annotated bibliography was conceptualized as two-fold: (1) to familiarize the project team with the broad sweep of writings on cooperative education, its history, philosophy, and present status, and (2) to provide more specific background material on the primary concern of the study, the goals and objectives of various cooperative education programs. The 106 annotated entries, listed alphabetically by author, include the following areas of cooperative education: goals and objectives, the student and cooperative education, institutions and cooperative education, employers and cooperative education, history and recent trends, program descriptions, program development, the role of the coordinator, academic credit for work experiences, cooperative education in non-traditional fields, funding for cooperative education, equal opportunity and cooperative education, evaluations and assessments, handbooks, materials, and guidelines, and voluntary versus mendatory programs. Typical bibliographic data are included. A subject index and a list of the periodicals utilized are appended. (BP)

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# MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

TO : Frank Bryars
ERIC

DATE: August 25, 1975

FROM : Pat Dever
OPBE

SUBJECT: Documents for ERIC Submission

Enclosed for ERIC submission are the following documents:

Consad Research Corp
HEW-OS-74-262

Final Report: Cooperative Education Planning Study, 246 pages

Annotated Bibliography: Cooperative Education Planning Study, 57 pages

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# ANNOTATED BIBLIOGRAPHY

## COOPERATIVE EDUCATION PLANNING STUDY

Contract Number HEW-OS-74-262

Prepared for:

Office of Planning
Budgeting and Evaluation/PSID
Department of Health, Education and Welfare
Office of Education
400 Maryland, S.W.
Washington, D.C. 20202

Prepared by:

CONSAD Research Corporation
121 North Highland Avenue
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July 1, 1975

TABLE OF CONTENTS


| | Page |
|---|---|
| INTRODUCTION | 1 |
| ANNOTATED BIBLIOGRAPHY | 3 |
| INDEX | 53 |
| LIST OF PERIODICALS UTILIZED | 54 |

INTRODUCTION

A review of the literature concerning the cooperative education movement brought into focus a number of key issues which helped direct the study effort. As is typical, the purpose of the review was conceptualized as two-fold: first, to familiarize the project team with the broad sweep of writings on cooperative education, its history, philosophy and present status; and secondly, to provide more specific background material on the primary concern of the study, the goals and objectives of various cooperative education programs.

The literature review was an on-going process which was pursued throughout the length of the contract period. Computer searches were commissioned from ERIC and the New York Times Index. A bibliography of holdings of the Cooperative Education Information Clearinghouse was obtained, and a number of documents were ordered. Contents of the Journal of Cooperative Education were reviewed in Washington at the library of the National Education Association. All sources, except the New York Times Index, proved to be extremely useful to the review.

After the alphabetized listing of materials selected as pertinent to the review which follows this introduction is an index, prepared to serve as a guide to reading for the project team. Four major subject

headings immediately suggested themselves to the bibliographer: the first, Goals and Objectives, is, of course, the central concern of the study; the next three are borrowed from the RFP which stipulated students, institutions, and employers as the three interdependent components of any cooperative program. As reading progressed, additional subject headings were selected as a number of key issues of concern to contemporary writers on cooperative education became apparent; the subject headings include The Role of the Coordinator, Academic Credit for Work Experiences, Funding for Cooperative Education, etc. Other headings speak more directly to the kind of material being reviewed -- Program Descriptions and Handbooks, Materials, and Guidelines. Although each document is included in the index, some materials were more difficult to classify than others. On the other hand, many materials seemed to fit snugly under two or more headings, and are therefore listed more than once as appropriate. In all instances, it is the major thrust of the document which is addressed by the index.

This volume ends with a list of periodicals utilized during the review.

ANNOTATED BIBLIOGRAPHY

1. Allen, Thomas R., Jr. Cooperative Vocational Education Coordinator's Handbook, Volume 1. Marshall University, Huntington, W. Va. Department of Vocational-Technical Education. 1972. 107 p.

   Developed as the first part of a two-volume program guide, this document should be useful to planners of cooperative vocational education programs in both the secondary and post-secondary education levels. Discussed in the program guide are: (1) the philosophy and objectives of cooperative vocational education, (2) the role of the teacher-coordinator, (3) teaching requirements, (4) the functions of guidance, (5) coordination activities, and (6) public relations techniques. Samples of materials dealing with the student's application and placement, interest questionnaires, weekly production reports, and the instructor's community survey, training plan, and coordination record are included.

2. _____. Cooperative Vocational Education Coordinator's Handbook, Volume II; Operation and Administration. Marshall University, Huntington, W. Va. Department of Vocational-Technical Education. 1972. 72 p.

   Major sections of the second volume of the guide are: (1) planning activities for cooperative vocational education programs, (2) advisory committees, (3) youth organizations, (4) existing vocational youth organizations, (5) adult education, (6) federal and state laws, and (7) providing for research in cooperative vocational education. Checklists for the evaluation of cooperative programs and related sections of the West Virginia State Plan are also included.

3. Anderson, Barbara Swanson. A Comparison of Two Methods of Instruction in Office Skills: Classroom-Laboratory and Classroom-Laboratory with Cooperative Work Experience. Vancouver Public Schools, Wash. Washington State Coordinating Council for Occupational Education, Olympia. August, 1973. 63 p.

   The purpose of this study was to determine whether cooperative education programs were more effective in teaching clerical skills, in preparing students for office employment, and in helping them to achieve employment and job success

than classroom-laboratory training in office skills alone. Two groups totaling 35 students were compared. A significant difference in favor of the cooperative group was found on the Minnesota Clerical Test. Cooperative students also showed a much higher percentage of employment and higher employment in clerical and office positions. Other measures showed no significant differences. It was concluded that a number of factors were identified which supported the continuation of cooperative business education programs.

4. Auburn, Norman P. Cooperative education and the development of human resources. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 1-7.

The author discusses the condition of the economy and the declining productivity of the American worker. Advantages of the cooperative system of education in the development of human resources are pointed out.

The author claims that the cooperative system of education enables young people to find out how best to use their skills, and provides an opportunity to develop and test career plans. Work-study arrangements, Auburn says, will be a great help in the development of human resources, an issue related to increasing productivity. The author urges the use of all devices to develop brain power in students.

5. Auld, Robert B. The cooperative education movement - early years. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 7-9.

Auld describes the early years of cooperative education programs at various schools. The philosophy behind cooperative education is presented and best exemplified by a quote from Sophocles, "One must learn by doing the thing; for though you think you know it, you have no certainty until you try." The author points out that cooperative education programs seem firmly established in the field of engineering education in the United States.

6. _____ ed. Fifty Views of Cooperative Education. University of Detroit, Center for Cooperative Education, Detroit, Mich. 1974. 80 pp.

During 1972-74, the Midwest Center for Cooperative Education at the University of Detroit conducted several one-week Institutes on Administrative Training in Cooperative Education. The faculty were drawn from leading cooperative education colleges and from major business, industrial, and governmental organizations participating in cooperative education. The "Views" are their summarizations of their presentations. The book is divided into the following major sections: Philosophy, Employers Discussion on Cooperative Education, The School and the Employer, Administration of Cooperative Education Programs, Academic Credit for Cooperative Training Experiences, Faculty and Public Relations, Minority Students and Cooperative Education, and Federal Funding. Most of the major sections are divided into sub-sections. For example, the section entitled Employers Discuss Cooperative Education includes the following subsections: The "Why" -- Employers Participate in Cooperative Education, and How Employers Select Cooperative Students.

A discussion of the goals and objectives of coop ed is featured in a number of sections. One faculty member said, "The question of program objectives should be the first question asked in considering a cooperative education program." He listed the following objectives for coop programs: earnings, pre-professional experience, recruiting, job orientation and training, admissions, laboratory experience, personality development, humanitarian, service, minority assistance, attitude change, skills training, and improved communications. Employers mentioned these objectives: (1) to serve as a source of proven talent; (2) to cut down the rate of employee turn over; (3) to guarantee more immediately productive employees; (4) to provide new ideas; (5) to obtain employees with more total understanding; etc.

7. Barbeau, Joseph E. Cooperative Education in America; Its Historical Development, 1906-1971. Northeastern University, Boston, Mass. 1973. 231 p. Available from Joseph E. Barbeau, Northeastern University, College of Education, Boston, Mass. 02115.

This study provides the perspective of history for the future development of cooperative education and describes in detail the philosophical basis upon which cooperative education was established. Five defined periods of the growth of cooperative education are discussed: the early establishment of cooperative education in the seven colleges prior to the First World War; the growth and diversification between World War I and the Depression; the difficult test of the great Depression and World War II; the expansion after World War II and the organization of cooperative education; and the unprecedented growth in the last decade prior to 1972. Recommendations for the future are included with an examination of the statistics of growth and their implications for further development. The appendices contain charts and maps which illustrate the development of cooperative education at some 300 colleges in the United States and the bibliography contains over 200 entries.

8. _____. The spirit of man, the educational philosophy of Dean Schneider. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971).

The author writes about Dean Schneider, the man who founded cooperative education programs at the University of Cincinnati in 1906. Barbeau examines the man and his philosophy of life in light of the times in which he lived. Schneider, Barbeau writes, emphasized the enabling quality of work, and the value of individual achievement. He believed that "work makes the spirit of a man." It is also noted that Dean Schneider saw a strong relationship between work and higher mental development.

9. Biester, John L. Variations in off-campus programs. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 53-57.

The author points out some problems in the concept of cooperative education as a viable method of education. One problem in particular has to do with traditional cooperative programs that Biester claims are too narrow in philosophy and implementation to serve the needs of diverse student bodies. He outlines some variations in programs now in operation, and discusses several programs in detail.

10. Borman, Alvah K. New programs in cooperative education. Journal of Cooperative Education, Vol. IX, No. 1 (November 1972), pp. 50-56.

The author looks at cooperative education programs initiated during the past ten years, a time during which, he contends, cooperative education has gained national and international recognition as a superior form of education. Borman discusses the goals and educational advantages of cooperative programs.

11. Bostisich, William D. Probative thoughts about the coordinator. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 49-52.

The author discusses the professional qualifications of cooperative education coordinators. The undergraduate preparation for this position is analyzed. Bostisich discusses the issue of professional identity for the coordinator, specifically in regard to professional rank, professional competence, job functions and specific tasks. The author points out the implications for cooperative education programs of this issue, and presents some recommendations.

12. Brockmann, L.O. Cooperative Work Experience Education - A Study in Success: Twenty-Six to Forty Years Later. 1972. 108 p. Available from the Titan Bookstore, California State University, Fullerton, California 92634.

This study was undertaken to provide an analysis of the reactions of students toward a cooperative work experience education program 26 to 40 years later. Major emphasis was placed on topics such as vocational choice, getting and holding a job, human relations, citizenship education, related instruction, education beyond high school, jobs held

since graduation, armed services participation, and income range. Data from 423 respondents (approximately 75 percent) revealed that: (1) the greatest value of the program was in human relations, especially employer-employee relations and the development of personality and poise, (2) in assisting the participants to make a vocational choice, the program ranged from somewhat to extremely helpful in 73.7 to 92.3 percent of the situations, (3) employment stability was average or better, with approximately 60 percent remaining in the same field for which they had been trained, (4) in the area of getting and holding a job, the program was somewhat to extremely helpful in 64.8 to 94.3 percent of the situations, and (5) the salaries earned by the former students were modest, with 10.9 percent earning over $20,000 per year. A sample survey instrument is appended.

13. Budke, Wesley E. and Joel N. Magisos. Answers to Questions on Vocational Education: Cooperative Education, Cost-Effectiveness, Curriculum Development; Occupational Exploration, Placement and Follow-Up, and Programs for Rural Areas. Ohio State University. Center for Vocational and Technical Education, Columbus. 8 p. Available from the Center for Vocational and Technical Education, 1900 Kenny Road, Columbus, Ohio 43210.

This short booklet contains questions and answers concerning aspects of vocational-technical education, including (1) satisfying student needs through cooperative education, (2) skill and ability requirements of the cooperative teacher-coordinator, (3) economic feasibility of vocational-technical education, (4) improving rural education, (5) characteristics of a career oriented school curriculum, and (6) increasing program effectiveness through vocational follow-up. The publications from which the answers were drawn review and synthesize research in the field. Information about them and how to order them is included.

14. Butler, Roy L. Cooperative Vocational Education Programs: Staff Development. Ohio State University. Center for Vocational and Technical Education, Columbus. Sponsored by the National Institute of Education (DHEW), Washington, D.C. 1973. 42 p. Available from the Product Utilization Section, the Center for Vocational and Technical Education, 1960 Kenny Road, Columbus, Ohio 43210.

Staffing for cooperative vocational education constitutes one of the most critical variables in planning and operating a successful program. Among the factors which must be considered are: the students, occupations taught, cooperating employers, the school district, supporting staff, scheduling, coordinator availability, student supervision, record keeping, and related youth group activities. The teacher-coordinator must have the time and assistance necessary to properly perform essential coordination activities. Certain competencies must be possessed by staff members, and though there may be some variation among position specifications, some general categories of competency are: performance, enthusiasm, ability to relate to students, flexibility, creativity, and proper projected attitude. Combining these elements with tested sources for personnel recruitment will contribute to a successful cooperative vocational education program.

15. Butler, Roy L. and Edwin G. York. What School Administrators Should Know About Cooperative Vocational Education. Ohio State University. Center for Vocational and Technical Education, Columbus. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (No. 1780-0772).

This publication is designed to serve school administrators interested in reviewing the key administrative concepts relative to cooperative vocational education. The document identifies the various types of cooperative programs. The advantages of cooperative education, and the major limiting factors related to the administration of these programs. Special attention is given to administrative matters such as (1) funding, (2) staffing and supervision, (3) advisory committees, (4) equipment and facilities, and (5) program evaluation. The compact nature of this review and its organization into guideline format should be of further assistance to the school administrator in planning and developing cooperative education programs.

16. _____. What State Leaders Should Know About Cooperative Vocational Education. Ohio State University, Center for Vocational and Technical Education, Columbus. Sponsored by the Office of Education (DHEW), Washington, D.C. March, 1971. 26 pp.

Based on a review of related literature, this document is designed to serve state supervisors and teacher educators interested in reviewing the key concepts relative to cooperative vocational education. The compact nature of the review and its organization into guideline format should provide a ready reference for the practitioner seeking to develop and improve work-study programs in his state. Special attention has been given to (1) essential elements of successful programs, (2) planning and implementation, (3) extension and improvement of programs, (4) recruitment and training of coordinators, (5) promotional activities, and (6) status of evaluation.

17. _____. What Teacher-Coordinators Should Know About Cooperative Vocational Education. Ohio State University. Center for Vocational and Technical Education, Columbus. May, 1971. 27 p. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (No. 1780-0771).

Primarily intended to serve as a reference for in-service teacher coordinators, this document provides an overview of key points regarding the development and operation of cooperative vocational education programs. Written from the perspective of the teacher-coordinator, the discussion centers around the broad topics of planning, coordinating, and evaluating cooperative programs. More specifically the topics include: (1) working with the administrator, (2) promoting the program, (3) surveying student interests and needs, (4) surveying community resources, (5) developing cooperative training stations, (6) planning and coordinating instruction, (7) youth organizations, and (8) labor laws. The guideline format of this document should further assist the teacher-coordinator in planning and developing programs.

18. Careers for Negro students: Northeastern University's pilot program. School and Society, Vol. 93 (1965), p. 364.

This article describes Northeastern University's pilot cooperative education program for Negro youth. Northeastern's president, Asa Knowles, called it an outstanding success in its first year. Knowles noted that the program provided the job experience so vital for Negro youth.

19. Carlin, Albert J. A Progress Report on the Study on the Feasibility of Cooperative Education at the University of Rhode Island. March 1, 1971. 19 p.

As the result of a feasibility study, it was recommended that the entire University of Rhode Island not enter into a cooperative education program. However, positive interest in a voluntary program of cooperative education was found in certain fields, notably education, home economics, engineering and resources development.

The University of Rhode Island is a state, tax-supported, coeducational institution, located in the village of Kingston in a suburban-rural environment, but within 30 miles of Providence, the state's main commercial and industrial center. The majority of the 8014 undergraduate students are from Rhode Island; most come from middle-class families, although in the past two years, serious efforts have been made to attract economically-disadvantaged young people.

The operational plan for the feasibility study included an assessment of student interest and needs, especially of those in disadvantaged groups; an assessment of possible employment opportunities; an assessment of the needs for, and feasibility of, academic schedule changes; an assessment of the character of any possible cooperative education program at the University; and an estimate of the possible interest of other schools in Rhode Island to enter into a consortium for cooperative education. The means of carrying out the operational plan were in five categories: consultants, a University committee, visit to a cooperative education program, surveys, and participation in a workshop on cooperative education.

20. Chase, John A. Research report: program characteristics. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 49-52.

The author discusses the results of a study done in 1970, involving the directors of 111 cooperative education programs at colleges and universities. Chase notes that most cooperative education programs are found in cities; that there is a wide variety of types of programs; and that most institutions have made changes in their programs recently.

21. Coast Community College District, Costa Mesa, California. San Mateo Junior College District, California. Community College Vocational Cooperative Education: Exemplary Project in Vocational Education Conducted under Part D of Public Law 90-576. First Annual Report. Bureau of Adult, Vocational and Technical Education (DHEW/OE), Washington, D.C. November, 1971. 51 p.

This is the first annual report of a 3-year exemplary project. Financed by the U.S. Office of Education to prove that a community college plan for career preparation through classroom study and off-campus, paid work experience is an effective solution to the problems of student motivation, educational relevance, and bridging the gap between school and employment. The major objectives specified for the first year of the program were to establish a national demonstration model and to demonstrate the effectiveness of (1) alternate semester, parallel and extended-day plans, (2) recruitment, development and coordination procedures, (3) disadvantaged student recruitment and maintenance, (4) technical, business and paraprofessional manpower recruitment and training, and (5) "outreach" instruction and counseling. Within this framework, 24 lesser goals and objectives were specified for the exemplary program. In all cases the primary governing philosophy was not to prove the concept of cooperative education, but rather to determine the most effective vocational curriculum patterns and procedures.

22. _____. Community College Vocational Cooperative Education: Exemplary Project in Vocational Education Conducted under Part D of Public Law 90-576. Second Annual Report. Bureau of Adult, Vocational and Technical Education (DHEW/OE), Washington, D.C. November, 1972. 49 p.

This is the second annual report concerning a multiple-option design for a cooperative education program used by a consortium of five California Community Colleges. The effectiveness of the programs is assessed by analyzing 15 areas such as retention, income, employer attitudes, cost effectiveness, and career training options. Innovative

aspects of this cooperative education program include: (1) the use of business, industry and civic agencies within the community as experience laboratories; (2) the use of performance objectives, permitting clearer understanding of cooperative education; (3) an effective method of providing educational assistance for veterans; (4) enabling handicapped students to go beyond the traditional vocational confinement; (5) the use of computers to simplify the process of enrolling, follow-up, evaluation, and articulation; (6) presenting new employment opportunities for women; (7) the use of evaluations by students, supervisors, and employers to measure progress and give direction for the future; (8) the development of career education by combining the Community College program with academic and vocational instruction in other educational programs; and (9) the enhancement of academic and skill development in law enforcement programs.

23. _____. Community College Vocational Cooperative Education: Exemplary Project in Vocational Education Conducted under Part D of Public Law 90-576. Final Report. Bureau of Adult, Vocational and Technical Education (DHEW/OE), Washington, D.C. September, 1973. 64 p.

The final report contends the national demonstration model shows that community college cooperative education (classroom study and off-campus, paid work experience) is an effective solution to many problems of student motivation, educational relevance, scholastic achievement, and retention in college, and helps to bridge the gap between school and employment. Among the findings were the following: (1) retention is improved by a factor of more than two to one; (2) academic standing is maintained or improved; (3) educationally disadvantaged students show improved progress; (4) employers are highly receptive after effective demonstration and promotion; (5) cost-effectiveness is being demonstrated as highly productive for the funds invested. Progress toward each of six objectives is described, and reports of various segments of innovation within the project are provided through discussion of 20 progress indicators, including enrollments, bilingual programs, new careers for women, evaluations, and employer reactions.

24. Cohen, Alan and Steven M. Frankel. Data Analysis Report; An Assessment of School-Supervised Work Education Programs. System Development Corp., Santa Monica, California. Sponsored by the Office of Education (DHEW), Washington, D.C. September, 1973. 197 p.

Data are analyzed to examine systematically different configurations of work education by means of a typology in three dimensions: educational level, primary program purpose, and industrial setting. A stratified random sample of 50 work education sites was drawn to determine the degree to which different types of programs are meeting their intended objectives. Separate interview questionnaires were used for program administrators, participating and non-participating unions. Based on findings of the data analysis, eleven policy recommendations are described. Appendices present cross tabulations by student groups and the interview questionnaires.

25. Coleman, P.E. A new appraisal of the cooperative plan. Journal of Business Education, May 1934, pp. 13-14.

The author recommends that high school graduates interested in business who need to earn their way through college should seriously consider going to a school with a cooperative education program. He contends that the time and energy spent during student employment will be converted into vocational advantages. Even students who do not have to earn their way through college should consider cooperative education programs because they provide better training at less expense and even in a shorter period of time than a typical four-year program followed by a practical apprenticeship.

26. Collins, Stewart B. Cooperative education -- promises and pitfalls. Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 6-9.

The author outlines what he believes to be the benefits for students derived from cooperative education programs: increased motivation; a greater sense of responsibility and judgement; a greater understanding of people. He also believes coop experiences can provide the student with badly needed financial support, as well as with good work habits. Coop experiences provide for a smoother transition between school and career.

27. Cooperative Education at LaGuardia Community College: An Assessment and Description of the Initiation of an Innovative Curriculum. Final Report. Soper Associates, Berne, N. Y. Sponsored by the New York State Education Department, Bureau of Occupational Education Research, Albany. August, 1972. 83 p.

LaGuardia College (New York) is the only community college in the United States requiring its entire student body to participate in a work-experience program regardless of curriculum choice. This study, conducted by a team of selected consultants, is an assessment of the program based on on-site visits, interviews, and an array of reports and publications. Some conclusions were: (1) the curriculum, using an interdisciplinary approach, individualized instruction, and a work internship program, provides a relevant experience for the student; (2) team counseling has proved to be effective and should be further developed to attain its full potential; (3) there is a pronounced need for additional funding sources to aid the financially pressed student; (4) recruitment methods need to be more comprehensive; (5) the college should continue to seek ways to evaluate the degree to which it is meeting its goals and objectives; and (6) the program merits close study by education authorities in other major metropolitan areas.

28. Cooperative Education General Related Instructional Units. Arizona State Department of Vocational Education, Phoenix. June, 1970. 162 p.

Resulting from the efforts of teacher-coordinators in a 3-week workshop, this study guide was designed to help student-trainees adjust to the many factors of the world of work. Including material useful in a general related class, the study guide is arranged in the following 10 units: (1) introduction to cooperative education, (2) youth clubs and parliamentary procedure, (3) human relations, (4) the relationship between health, safety, and labor laws, (5) managing your personal finances, (6) business organization, (7) labor-management, (8) choosing a career, (9) seeking employment, and (10) state compensation fund. Also, the study guide is organized to allow the teacher to use the units in any order he chooses. Assignment sheets are provided for each unit.

29. Cooperative Occupational Education Programs, Administrative Handbook. New York State Education Department, Office of Occupational Education, Albany. 1972. 92 p. Available from the University of the State of New York, The State Education Department, Office of Occupational Education, Albany, N.Y.

This administrator guide describes occupational cooperative and work-study programs in the State of New York, detailing the advantages of cooperative education for the student, the school, the employer, and the community. A rationale for work experience programs precedes a chart giving objectives, time allotments, student characteristics, and other pertinent information relating to New York work experience programs. Diverse administrative considerations are discussed, ranging from staffing to program planning. Program features are specified for each type of cooperative program. Line diagrams illustrate the text, which includes a bibliography and a glossary.

30. Cooperative Occupational Education Programs; A Conference Seminar to Extend the Range of Vocational Education. Final Report. City University of New York; New York Division of Teacher Education. Sponsored by the Office of Education (DHEW), Bureau of Research, Washington, D.C. December, 1970. 151 p.

This guide explains the basic concepts in cooperative education and describes the essential characteristics of effective program development and operation. The guide is the final report of a three-phase institute which developed, implemented, and evaluated plans for new directions in cooperative education. As a result of this investigation, the report provides guidelines and procedures for redirecting cooperative education. Nine papers presented by participants are appended.

31. Cooperative Vocational Education in Small Schools: A Suggested Guide for Program Planning. New Mexico State University, University Park. Sponsored by the National Center for Educational Research and Development (DHEW/OE), Washington, D.C. 1972. 39 p. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (No. 1780-0963).

Guidelines and alternatives for planning cooperative vocational education programs in small rural schools are presented in this document, which proposes methodologies to promote the range of opportunities for occupational exploration and training via a learning-earning program that utilizes community resources. The document contains guidelines relating to meeting instructional objectives within the career education concept, organizing instruction, and program implementation. Appendix A describes the Paola Pilot Project in vocational education; Appendix B provides description of the Cochise County Summer Cooperative Occupational Education Project; and Appendix C summarizes the Aurora Diversified Occupations Program. 16 references.

32. Cooperative Vocational Education Programs. Office of Education (DHEW), Washington, D.C. Division of Vocational and Technical Education. July, 1972. 30 p.

Cooperative education, said to be a "sleeping giant" in vocational education, received special authorization in public law 90-576 and was made a priority in vocational education. This publication summarizes information to assist the states in planning cooperative vocational education; such as definitions, funding sources, program content, and applicable legislation including regulations for state vocational education programs.

33. Corbman, Bernard P., and Marvin Hirshfeld. A successful cooperative work experience program. Journal of Business Education, November 1965, pp. 62-64.

The authors discuss their cooperative education program at Bronx Community College. They give particular attention to these features: the close relationship between employees and the college; weekly seminars for students; the screening of students before admitting them to the program; supervising and evaluating students. The authors discuss student reactions to the program and the benefits of cooperative education in general.

34. Cravens, O.W. Cooperative education and the world of business. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 20-24.

The author claims that cooperative education exposes the student to the most current and up-to-date practices and principles in his field; it equips him to take his place in a company. Cravens notes the position of the U.S. as an industrial power and indicates his belief that the cooperative system of education will train a new generation of workers that will increase the productivity of American industry.

35. Cross, K. Patricia. The Integration of Learning and Earning: Cooperative Education and Nontraditional Study. American Association for Higher Education, Washington, D.C. 1973. 70 p. Available from the American Association for Higher Education, 1 Dupont Circle, Suite 780, Washington, D.C. 20036.

This paper examines the rapidly developing trends of cooperative education and nontraditional study. The author sees these trends as an attempt to end the self-imposed isolation of higher education. The first, cooperative education, brings students out of the more traditionally cloistered classroom setting into the world of work. The second, nontraditional studies, brings adults who in past years have completed college back into the classroom. These trends are seen as a response to pressures to integrate education into the life needs of learners as well as to allow greater educational opportunity for a larger number of potential students. An extensive bibliography is included.

36. Dixon, James P., and Bush Dixon. College and the world of work. Educational Leadership, Vol. 23 (1966), pp. 326-329.

The authors believe that students should apply knowledge and not restrict their learning to the armchair. They agree that the principal benefits to be derived from cooperative education programs are related to preparing for a career and earning a salary. However, they also emphasize intellectual stimulation and personality development. They contend that competent supervision of students is important to coop programs if work experiences are to be related to individual needs. They believe students are capable of performing in many demanding work roles. They see it as the college's responsibility to determine a student's skills and special abilities and then place him in a situation where he can best employ them.

37. Dowes, Chester L. Co-op Engineering and Industry at Harvard. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 36-39.

The author describes the cooperative education program in the engineering school at Harvard. The history of the program is discussed, as is the present program and future plans.

38. Dopp, Joan and Athyleen Nicholson. Guidelines for Cooperative Vocational Education in Community Colleges. Washington State Board for Community College Education; Washington State Coordinating Council for Occupational Education, Olympia. 49 p.

Representatives from education, business, industry, labor, and government met in a three-phase cooperative education workshop to establish common agreement on criteria and improvement of cooperative vocational education in community colleges of the State. With emphasis given to feasibility studies, training agreements, legal implications, and philosophical views, this manual was developed as an aid to administrators and teacher coordinators interested in implementing, evaluating, or developing cooperative programs. Major sections of the manual are: (1) What is Cooperative Vocational Education, (2) Steps in Planning, (3) Responsibilities of the Instructor-Coordinator, (4) Responsibilities of the Employer, (5) Legal Responsibilities, (6) Initiation and Maintenance of Good Public Relations, and (7) Evaluation of a Cooperative Vocational Education Program. Also included are several sample work forms used by the coordinator.

39. Dube, Paule. Cooperative education in the social sciences and humanities for colleges implementing new programs. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 17-27.

The author discusses the recent clamor for relevant education, and says that cooperative education meets these demands. Dube points out that it is difficult to develop sophisticated work experiences for Liberal Arts students. It is speculated if teaching faculty would spend more time in the world outside the academic community, that the faculty would be in

a better position to make courses relevant. The author describes the ways cooperative education gives the individual an opportunity to discover himself in relation to work. Dube also discusses the problem of financial assistance, student responsibility, and individual guidance. It is suggested that coordinators try to provide a greater variety of job opportunities and more appropriate placement of students.

40. Expansion of cooperative education: work-study plan. School and Society, Vol. 91 (1963), p. 102.

The National Commission for Higher Education declares that their goal is to double the number of colleges and universities offering cooperative education programs from 60 to 120, by aiding programs in various ways. Financial support, as proposed by the commission, would come from contributions from foundations and interested industries. The Commission's plan calls for the provision of training and special materials for college administrators, faculty and coop coordinators. The goal of the training would be to show how to develop coop programs and solve the problems of implementation.

41. Frankel, Steven M. Executive Summary; an Assessment of School-Supervised Work Education Programs. System Development Corp., Santa Monica, California. Sponsored by the Office of Education (DHEW), Washington, D.C. September, 1973. 30 p.

This document summarizes the significant findings, overall methodology, and policy recommendations for the assessment of school supervised work education programs. It consists of material contained in the Data Analysis Report together with a description of the analysis model developed for each respondent group. Individual predictor items were related to outcome measures by cross tabulation and tested for statistical significance and strength of association by Chi Square and other measures to determine which program components have a major impact on program success.

42. _____, et. al. Replication Handbook; an Assessment of School-Superivsed Work Education Programs. System Development Corp., Santa Monica, California. Sponsored by the Office of Education (DHEW), Washington, D.C. September, 1973. 145 p.

The purpose of this document is to provide educational researchers and administrators with the material needed to replicate the study, an assessment of school-supervised work education programs, within a sphere or interest limited geographically, vocationally, or in other functional ways. The procedures used to carry out this study and produce its products are briefly described. Included are sections on establishing the advisory committee, conducting a literature search, obtaining program nominations from individuals, designing and distributing a preliminary questionnaire, developing a typology and selecting programs for intensive study, designing interview schedules, collecting data, processing data, and planning and conducting the data analysis activities. The complete set of products developed for the project is described and included.

43. Fuller, Robert. Cooperative Field Education Program; First Annual Report, FY July 1, 1971 - June 30, 1972. South Dakota University, Vermillion. 1972. 85 p.

The University of South Dakota Cooperative Field Education Program (CFEP) serves to supplement existing classroom study with related, credited field experience. The field experience is to: (1) give the student an opportunity to apply academic study to actual work experience; (2) open up new areas of interest, study and employment for the student; (3) make the student more attractive, because of his field experience, to a potential employer; and (4) provide potential employers with an opportunity to recognize the worth and value of the individual student and others like him. This document presents a report of the first year of the CFEP and offers recommendations for its future.

44. Gore, George. New Evidence of Co-op System Relevancy. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 7-14.

This article presents new information related to the relevancy of cooperative education. The author cites former studies which compared co-op students with non co-op students. Three indicators related to salaries, position levels, and employer attitudes, were used as supportive evidence for the claim that coop education is relevant. Gore claims that coop is relevant because through cooperative education the student is provided with constant feedback on his work and study.

45. Gruenberg, Gladys W. Final Report; Study of Cooperative University - Community Programs. St. Louis University, School of Commerce and Finance. March 15, 1972. 32 p.

This study was undertaken to investigate the role of various work-study arrangements in institutions across the country, with a view to expanding the University's role in the community, and to encourage greater cooperation and communication between students and representatives of community institutions. To this end, the author: (1) sent letters to 80 Directors of Cooperative Education selected because the school had a diversified program, and to cover every available type of program and educational institution from part-time work-study to full-time off-campus internships and encompassing community colleges and four-year institutions; (2) sent letters to the Cooperative Education Association, the National Commission on Cooperative Education, the U.S. Office of Education Cooperative Education Coordinator, and coordinators at Northeastern and Waterloo Universities; (3) conducted personal interviews with well-known authorities; and (4) sent questionnaires to faculty and students of St. Louis University and to large firms and non-profit organizations in the St. Louis area.

Findings include the following: (1) cooperative programs cover a wide range of activities, and whether such a program is an integral part of the curriculum or merely a financial aid depends on the educational philosophy of the institution; (2) most institutions that have adopted "total" cooperative education programs since 1960 either have had on-going programs in vocationally-oriented schools such as engineering and architecture, or have received federal funding for assistance to disadvantaged students; (3) under current economic conditions, employers in private industry are reluctant to expand their cooperation with such programs unless they can be used to implement affirmative-action programs to promote minority training; (4) students and faculty at St. Louis University generally favor some form of cooperative education; (5) the first change which must occur if an effective cooperative education program is to be adopted is to wholeheartedly endorse professionalism of education, so that all students are expected to have experiential learning as part of their college curriculum regardless of whether they need financial aid; (6) any plan

which covers all students requires the services of a full-time director with faculty status, plus administrative assistants and clerical staff; (7) while the "total" alternating work-study cooperative education program is not recommended except as an individual student contract option, it is recommended that each department take steps to adopt a professional practice course as part of the curriculum for students in their senior year; and (8) adoption of such a program is a total commitment of the University to a career-oriented approach to education and an acknowledgement of the University's responsibility to facilitate the student's transition from school to employment.

46. Guidelines to Initiate and Operate a Cooperative Vocational Education Program. Pennsylvania State Department of Education, Bureau of Vocational, Technical, and Continuing Education, Harrisburg. 1971. 83 p.

Prepared by the State Department of Vocational Education, this handbook is for school administrators, coordinators and teachers to use in planning, establishing and conducting cooperative vocational education programs. The basic purpose of the cooperative program is to provide occupational training through the use of business and industrial concerns. Problems connected with such a program include: (1) program organization and establishment, (2) program guidelines, (3) laws, rules, and regulations for employment, (4) administration and supervision, (5) financing the program, and (6) evaluation. Information concerning procedures and sample forms is appended.

47. Hamburger, Martin. The Significance of Work Experience; A Discussion Paper. Prepared for the U.S. Office of Education, Division of Adult and Vocational Research. January, 1967. 17 p.

The number of adolescents engaged in supervised work experience or work-study programs that presumably have built-in "meaning" is quite small. Although it is claimed that meaningful work experience for students increases the holding power of the school, builds character, develops desirable habits and attitudes, and provides vocational orientation, research evidence on the efficiency of work

experience as educational or therapeutic is lacking. If positive outcomes emerge from work experience, they are primarily financial or otherwise instrumental. This instrumentability, however, is connected with independence. Maturity, and responsibility, meeting role-models, key figures, and vocationally successful people may be just as important as any other experience. In developing or expanding work-study programs, it must be recognized that the availability of work slots in the private sector of business is quite restricted, and that, although the greatest number of possibilities exist in public or non-profit settings, there is a dearth of inherently meaningful jobs in both sectors. Thus the burden is on the coordinator and other adults to use all kinds of jobs and "impart" meaning to them by being straightforward in spelling out the facts such as drudgery, acceptance of criticism, and tolerance for supervision. It is the connection, the relationship, or the fact of life which gives the experience meaning, not the task which has inherent meaning. Coordinators and job supervisors need to receive special training; for coordinators, this may be in workshops at first, but eventually career specialized training is essential.

48. Heermann, Barry. Cooperative Education in Community Colleges: A Sourcebook for Occupational and General Educators. 1973. 219 p.

The special function of cooperative education in the community college setting is described in this book and procedures that could be used by administrators in operating such a program are outlined. The book has major divisions. Part One traces the development of cooperative education and its associated philosophies, offers a model for a comprehensive cooperative education program, and examines program potentials and possible pitfalls. Part Two sets forth planning and organizational guidelines, and Part Three explains numerous operational subtleties that are crucial to an effective program, including the important "defined-outcomes" methodology. Part Four contains sample forms for use in a community college cooperative education program. Specifically, the book examines the philosophies of vocational and general cooperative education; the community college institutional setting; the

applicability of defined outcomes; the role of the employer, instructor, and coordinator; the selection and development of employers; organizational alternatives; promotion of the program; guidance activities; evaluation and feedback; and other topics critical to the administration of community college cooperative education. A bibliography is included.

49. Hiserodt, Donald D. A Study of Cooperative Occupational Education for the Maricopa County Junior College District. March, 1971. 51 p.

This document presents the results of a feasibility study concerning cooperative education for the Maricopa County Junior College District. The study included the following components: (1) an interest survey among employer groups in Maricopa County; (2) the identification of employers who would cooperate in the development of coop programs; (3) an interest survey among faculty of the college; (4) the identification of faculty members who would cooperate in the development of coop programs; and (5) bringing together interested employers groups with interested faculty groups to explore the benefits and problems of a coop program.

Cooperative education as a plan of instruction can be applied to accomplish both general education and occupational objectives. General education objectives include: (1) student financial assistance; and (2) general work experience. Occupational education objectives include: (1) exploratory outcome; (2) occupational skills development outcome; (3) occupational skills application outcome; and (4) up-grading occupational skills outcome.

The director of the feasibility study recommended that the objective of the Maricopa County program be "to enable the student to apply the knowledge and skills he has developed in the classroom on a real job." He recommended the District accept the concept of cooperative occupational education as an instructional strategy or method as opposed to a program. This would allow different plans or applications of the method to be used to accomplish various outcomes. He recommended the plan be implemented district-wide in school year 1971-72. Students would register in a three credit hour course in cooperative work experience; a maximum of nine hours may be earned. The student must work at least 15 hours per week to qualify for credit. Both parallel and alternate scheduling would be utilized.

50. Holsenback, Daniel C. Fun and games: short range opportunity costs for cooperative students. Journal of Cooperative Education, Vol. X, No. 1 (November 1973), pp. 60-66.

The author conducted a survey to determine employer attitudes toward cooperative education programs. He discovered that the major objective of the employers is to increase the long-term retention rate of talented, educated personnel, and, according to the employers, they are meeting that objective. Employers view coop students as temporary employees, typically offering salaries of $450 - 500 per month and few fringe benefits. Advancements in salary and levels of responsibility are a function of on-the-job training received from the employers.

51. Huffman, Harry. Guidelines for Cooperative Education and Selected Materials from the National Seminar Held August 1-5, 1966; A Manual for the Further Development of Cooperative Education. Ohio State University, Center for Vocational and Technical Education, Columbus. 1967. 245 p.

The objectives of the seminar were to promote the use of cooperative education and to explore the possibilities of interservice training for occupations requiring knowledge and skills from several areas. It was attended by over 110 state leaders from 41 states. The guidelines are organized in five groups dealing with the school, the teacher-coordinator, the program, the student-trainee, and the employer. Among the seventeen papers were (1) "Impending social, economic, and employment changes that may affect cooperative education", (2) "Cooperative education as a policy of the national school boards association", (3) "Establishment, organization, and operation of cooperative education", and (4) "Some questions that need to be answered about the training of coordinators". The appendix contains (1) speaker-consultant biographical sketches, (2) the seminar program, (3) forms for organizing the seminar, (4) a selected bibliography, (5) forms for administering cooperative education, (6) a roster of 147 seminar participants, and (7) a questionnaire used to gather information from selected cooperative education programs.

52. Jarrell, Donald W. An Evaluation of the Langley Research Center Cooperative Education Program. August, 1970. 44 p.

The Langley Research Center cooperative education program for science and engineering students was started in 1952 with four employees. It is administered by a cooperative education coordinator in the Center training office and by a "division contact" in each of the 15 research, flight project, and engineering and technical services divisions that use cooperative employees. The typical "student trainee", as he is officially designated, spends seven three-month work periods at Langley in at least six different assignments. At the end of the program, he is usually offered permanent employment with Langley. In its peak year, 1965, an average number of 106 cooperative employees were in various stages of the program each quarter, part at school and part at work. As of March 31, 1970, a total of 103 Langley Research Center permanent employees were former participants in the cooperative program. The major benefit of the program, as seen by administrators of the Center, is to develop superior professional employees for the Center.

The purpose of the study discussed in this report was threefold: to evaluate the program in terms of its objectives, to clarify the manner in which program operations contribute to or detract from the attainment of these objectives, and to recommend courses of action to further improve program operations and attainment of objectives. Four research techniques were employed: (1) former cooperative education students now employed at Langley were compared with employees in like positions recruited from three other sources by extensive search of individual records; (2) interviews were conducted with 37 Langley personnel; (3) telephone interviews were conducted with officials in 17 of the 22 colleges and universities with current cooperative agreements with Langley; and (4) questionnaires were sent to 47 cooperative students and former cooperative students employed at Langley.

Results showed that former cooperative employees, as contrasted with employees recruited from other sources,

showed an initial advantage in promotion, earned graduate degrees more often and had a strikingly lower turnover rate after being hired as a permanent employee, and received more awards. Coop students listed these advantages to the program: that work experience helps in knowing if one's career choice is correct; that work experience provides financial aid; that it helps a student obtain a job after graduation; and that it helps a student understand course material. Many students listed no disadvantages to the program; however, two disadvantages were mentioned: that more time is required to earn a degree, and that work assignments are perceived as "interruptions to the educational process". Langley and college and university personnel agreed work assignments could be more meaningful if the job supervisor would prepare in advance an oral or written plan with sufficient detail to fully utilize the student.

53. Kany, Carolyn D. First impressions on women in cooperative education, or, I'm not for women's lib, but... Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 41-46.

The author observes that cooperative education programs can expand a woman's awareness of career potentials and thereby alter her original career choices. It can also erase ignorance of and/or lack of concern with job market realities and bring about an awareness of the issue of equal economic opportunities for women.

54. _____. Male students in cooperative education: a comparative study. Journal of Cooperative Education, Vol. X, No. 1 (November 1973), pp. 53-60.

The author conducted a study of the different responses of male and female students to work experiences in a cooperative education program. She discovered female students tend to cluster in traditional female fields and then, after their work experiences, to expand their aspirations. While both male and female students continue adherence to traditional roles, work experience seems to encourage some loosening of role restrictions.

55. Kaufman, Maurice. The use of college students as teacher aides. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 37-43.

The author describes the effect of cooperative education placement on learning in teachers education programs. Kaufman contends the use of coop students as teachers aides is beneficial for the student in terms of learning teaching skills. Kaufman also contends using students as teachers aides is beneficial for the teacher, especially in regards to the efficient utilization of time.

56. Kimmel, Robert B. The short range opportunity cost at selected institutions for male students who successfully complete a five-year cooperative educational degree program. Journal of Cooperative Education, Vol. IX, No. 1 (November 1972), pp. 68-74.

The author discusses data from Auburn University and Virginia Polytechnic Institute concerning coop students in accounting, business, and engineering. He believes that the opportunity cost in the short run does not appear to support participation in cooperative education programs at Auburn or Virginia. However, Kimmel notes that this short range opportunity cost is only one factor and may be one of little importance.

57. Kingston, Carmela C. A Study of the Status and Effectiveness of Cooperative Office Education in New Jersey, 1968-69. New Jersey State Department of Education, Occupational Research and Development Branch, Trenton. 1970. 39 p.

This monograph summarizes a doctoral study on the effectiveness and status of New Jersey's cooperative business education programs. Among the conclusions of the study were: (1) the cooperative office education programs benefited those students who wanted to begin working immediately after high school, (2) cooperative office education did not appear to have an effect on the beginning salary, (3) cooperative office education did appear to have an effect on salary increases received by beginning workers, (4) a high degree of job satisfaction was indicated by both the cooperative and non-cooperative students, (5) employers were better

satisfied with those beginning office workers who were cooperative office education graduates, and (6) cooperative office education did not appear to have a significant effect on the quantity or quality of the work performed by the beginning office workers. Numerous recommendations are also included.

58. Knowles, Asa S. Cooperative education: the catalyst for innovation and relevance. Daedalus, Winter 1975, pp. 202-209.

The author summarizes the development of educational institutions' concern with innovation to meet the demands of society and industry through the ages. Contemporary trends in education include: the opening of doors for minorities and women; the introduction of adult education for both continuing education and personal enrichment; changing life styles on campus; and the participation of students and faculty in policy making. Cooperative education can be viewed as nested among these relevant changes.

The author outlines the definitional requirements and history of coop education, with particular emphasis on the financial support the program has received. Advantages to the student, employers and institutions are discussed. The author concludes that the program ties institutions more closely to their local communities in affecting the supply and demand of educated manpower, both geographically, and in terms of fields of study. Along this rationale, the author would see growing out of the coop education program the need for long range manpower planning. This planning would encompass planning of economic growth, projection of manpower needs and the channeling of college enrollments -- both nationally and internationally, due to the global nature of our shrinking world.

59. Kosy, Eugene J. and John M. Chrismer. Guidelines for Cooperative Business and Office Occupational Education. Central Washington State College, Ellensburg. Washington State Coordinating Council for Occupational Education, Olympia. 1973. 107 p.

The manual for business and office education in Washington is intended to assist all in-school personnel involved in

cooperative occupational education (COE) and provides step-by-step guidelines for planning programs appropriate to each school's situation. COE combines classroom learning with on-the-job training to help each student prepare for his chosen occupational objective and to make a smooth transition from school to work. Areas covered by the guidelines are: the relationship between a general knowledge base, related occupational instruction, on-the-job training, and youth organizations; administrative considerations for a COE program; "How to Do It," including personnel selection for the COE program, community promotion of COE, student placement, counseling, and evaluation, and program evaluation; and related instruction. The Washington State Plan for Vocational Education is included together with 60 pages of appendices and exhibits of related material.

60. Law, Gordon F. Cooperative Education Handbook for Teacher-Coordinators. 1970. 73 p. Available from the American Technical Society, 848 E. 58th Street, Chicago, Illinois 60637.

The term cooperative education is generally associated with a school and work program in which student-learners receive supervised payroll experience as part of the school curriculum. Steps in planning a program include surveys of community resources, student aspirations, and existing curriculums, and evaluation in terms of the criteria for approval for state and federal reimbursement. Selections of employers and establishments must be conducted carefully to assure maximum benefit to both parties, and it is also imperative to be familiar with the legal requirements for employment and training such as certification, insurance, and licensing. Related instruction is of two types -- information pertaining to skills and knowledge in a particular occupation, and information on personal, community, and occupational problems. In addition to review of these aspects of cooperative education, the document devotes a section to the problems and procedures common to day-to-day program operation.

61. _____. Contemporary Concepts in Vocational Education, The First Yearbook. American Vocational Association, Washington, D.C. 1971. 435 p. Available from Publication Sales, American Vocational Association, 1510 H Street, N.W., Washington, D.C. 20005.

Prepared to serve as a resource manual for educators as well as informative reading for the general public, this first yearbook explores a wide range of views, topics, and trends of current importance in the field of vocational education. The authors were particularly concerned with the philosophy of vocational education as expressed in the declaration of purpose of the 1968 amendments. Chapters include: (1) Philosophical Aspects of Vocational Education, (2) Equipping All Persons for a Productive Life, (3) People, Jobs and the Vocational Education Curriculum, (4) Comprehensive Research and Planning and Vocational Education, (5) Schools, Programs, and Systems: The Delivery of Vocational Education, (6) A New Perspective for Education, (7) Cooperative Education and Other Forms of School-Community Involvement, (8) The Professional Development of Vocational Educators, (9) The Economic Role of Vocational Education, and (10) Evaluation, Accreditation and Accountability in Education.

62. Lucas, Aaron. Process Model for the Development of a Cooperative Education Program. State University System of Florida, Tallahassee. Sponsored by the Bureau of Higher Education (DHEW/OE), Washington, D.C. 1973. 150 p.

This document presents a process model for the development of a cooperative education program. Aspects of the first year of program operation are discussed including: preplanning/study stages, establishment of coop committees, surveys, establishment of alternative approaches, visiting institutions representative of the school, specifications for alternative plan of operation, evaluation of instruction, and institutional evaluation of alternative programs. The second year is discussed in relation to implementation, budget, determination of staff qualifications, selection of staff, preparation of staff, development of program policies and procedures, student cultivation and recruitment, employer cultivation and recruitment, interview and selection of students, and location of assignments and final arrangements. Appendices include program forms, schedules, evaluation forms, records, questionnaires, and other related data.

63. Lupton, D. Keith. Coomunication in cooperative field supervision. Journal of Cooperative Education, Vol. VIII, No. 2. (May 1972), pp. 39-43.

The author contends that field supervision is the least understood and least discussed function in cooperative education. The functions of key people during these field visits are described. Lupton discusses the role of the official employer contact, the supervisor, and the student. Some short-cuts, which may be used when field visits involve long distances, are discussed.

64. _____. Reviewing the liberal arts situation. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 57-62.

The author notes the need for reviewing the special problems of liberal arts students in cooperative education and for providing new solutions to these problems. Liberal arts students, the author contends, require different programs with different formats than business and engineering students. The elements of a successful liberal arts program are still to be determined, Lupton says. He suggests that liberal arts programs not be restricted by the traditional career orientation of coop programs.

65. _____, and Dorothy E. McNutt. Academic credit for cooperative education. Journal of Cooperative Education, Vol. IX, No. 1 (November 1972), pp. 60-65.

The authors point out that the issue of academic credit is perhaps the most difficult one facing cooperative education program planners. Lupton and McNutt examine the model of the College of the Mainlands in Texas. The authors discuss the case for giving and not giving credit.

66. Magisos, Joel H. and Roy L. Butler. Cooperative Education: Answers to Questions on Vocational and Technical Education. Ohio State University, Center for Vocational and Technical Education, Columbus. 1973. 7 p.

This pamphlet was designed to provide vocational educators, administrators, and other individuals interested in developing

and/or implementing cooperative vocational programs with information on the subject. Answered are these questions: (1) what evidence is there that cooperative vocational education is necessary or that it is better than other methods of instruction, (2) how does cooperative vocational education differ from other work-experience programs, (3) what are the characteristics of a good cooperative vocational education program, (4) what is related instruction in a cooperative vocational education program, (5) where can instructional materials for cooperative vocational education be obtained, (6) what qualifications must a successful teacher-coordinator possess, (7) what are the characteristics of a suitable job training station, and (8) what are some problems that can be anticipated in developing and operating a cooperative vocational education program. Publications containing more extensive information on the subject are cited.

67. Marks, M. V. Improving occupational experiences. Business Education Forum, Vol. 17 (1963), pp. 5-7.

The author supports occupational experience as a significant part of learning. The purpose, he says, of occupational programs is to develop individual capacities and competencies in order that career goals may be achieved. Marks sees the classroom as the center of the program with the teacher leading the student through a variety of experiences and providing through his classroom instruction the means for improving occupational experiences. Marks discusses various teaching techniques which can be employed in a vocational program.

68. Mason, R.E. Effective cooperative business education programs. Business Education Forum, Vol. 16 (1962), p. 21.

The author discusses the responsibility of cooperative education coordinators to be on the alert for opportunities for program improvement. Mason suggests the make-up of a file of minimum essentials for the coordinator. The basic file is a tool with which a new coordinator may start a successful program. Contents of the file include: statements of objectives; criteria for selection of student-learners; criteria for selection of training stations; lesson plans; and reference material.

69. Mautz, Robert B. A road to relevance. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 9-15.

The author discusses some trends in higher education within the context of the growth of the state university system in Florida. One of the trends he identifies is the tendency of universities to move to centers of population and to encourage large percentages of college-age people to attain an education. Many of these people will not be prepared for the rigors of a college-level program and will require extra support. Two other trends are also important to the author's thesis: that faculty will continue to have little experience with the world of work; and that the fiscal future of higher education will continue to be bleak. Mautz believes that to contend with these trends universities must become more relevant to the every-day world with the help of new kinds of faculty and programs, including cooperative education.

70. McDaniel, John W. NYC Summer/In-School Goes to Community College: Proven Program for Youth. Final Report. Evaluation Technology Corp., Camarillo, Calif. Sponsored by the Manpower Administration (DOL), Washington, D.C. February, 1973. 356 p.

This final report summarizes five years of development of cooperative summer and school-year programs between the Neighborhood Youth Corps (NYC) and community colleges. "NYC goes to Community College" is a combined work and study program for economically disadvantaged youth, cooperatively conducted by local sponsors of Neighborhood Youth Corps and community colleges. The target population served by the demonstration programs was composed of NYC eligible, junior or senior high school youth. Including the 1972 summer, over 10,000 NYC youth participated in the program which grew from one pilot model in 1968 to 128 separate programs in 1972. The program model includes these components: (1) the Neighborhood Youth Corps recruits and selects eligible poor youth, pays them for their participation in work and other program services, arranges for their transportation to these services, and works jointly with the community college in planning a work and study program and related counseling for enrollees; and (2) the community college admits NYC enrollees to appropriate credit classes, identifies meaningful job sites for

enrollees, supervises their work, provides tutoring, counseling, recreation and cultural activities, and holds course credit earned "in escrow" or transmits it back to the high school as needed.

71. Meyer, Warren G. Improving occupational experience. Business Education Forum, April 1963, p. 3.

The author discusses the value of learning from work experience. Meyer describes his own experience as a sales clerk, and points out that it is very closely related to his field today which is group dynamics and the social structure of work. The need for coordinating work experiences with related topics of study is emphasized.

72. Miller, Irvin B. The University of Houston Cooperative Education Department and the Houston Independent School District Aide Program. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 30-36.

The author discusses the cooperative education movement, and describes it as a natural vehicle for extending work-study-type programs to schools of education. Miller analyzes the implementation and operation of cooperative education programs, and provides some recommendations concerning pilot programs of cooperative education.

73. Mosbacker, Wanda B. Women in co-op. Journal of Cooperative Education, Vol. X, No. 1 (November 1973), pp. 31-43.

The author hopes for increasing gains for women in the world of work. She sees barriers slow in falling. She discusses various myths concerning working women, such as that they have limited career aspirations; that they quit jobs more frequently and are therefore poor training risks; and that they prefer male superiors. She attacks the idea that women play only a minor role in the work environment.

74. [illegible], Tom. Cooperative Education at Los Angeles Pierce College. December 9, 1971. 28 pp.

This report examines the goals and objectives of Cooperative Education at Pierce College during 1970-71. The

program supplements classroom instruction with related on-the-job experience. Any full-time student pursuing an associate degree or certificate program, who is employed five to 20 hours a week, is eligible to receive one to four units of credit. In order to participate in the program, the student must find a job directly related to his occupational major and be interviewed by the coop ed coordinator. A maximum of 16 credits may be earned.

The program was initiated during the 1970-71 academic year. Enrollment climbed from 125 students in the fall semester of 1970 to 249 in the spring semester of 1971 to 265 students in the fall semester of 1971. Significant contacts were established with 253 employers, and additional employers have contacted the campus specifically requesting that coop students be placed with their firms.

It is believed at Pierce that coop ed programs are beneficial to students, employers, and the community. The program launches thousands of young people into the world of work, promotes productive working careers, and fulfills one of the basic goals of education. A student who develops excellence and acquires outstanding job skills early in his work experience will stay on the job longer. The employer benefits when he develops a well-trained work force that can be trusted with responsibility. The community benefits when it provides a working-living environment that is economically attractive to skilled workers and employers.

A mail survey of 112 coop ed students during the 1971 summer session revealed that 44% rated the program as excellent, 42% rated it as good, 8% rated it as fair, and 6% felt it needed improvement.

75. Poole, James. The Civil Service Commission and cooperative education. Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 59-61.

Consistent with a Presidential directive directing that young people should be involved in government, the Civil Service Commission is hiring cooperative education students. The author points out that in fiscal year 1971-72 that 5000 students from 244 schools in 45 states and the District of Columbia worked for the Civil Service Commission.

76. Pratt, Christopher G. L. Nursing -- a natural for co-op education. Journal of Cooperative Education, Vol. IX, No. 1 (November 1972), pp. 65-67.

The author discusses the cooperative education program in nursing at Northeastern University. This program is traced to its inception in the 1960's. Pratt notes the naturalness of the combination of coop education and nursing. He discusses the experiences of students, and compares Northeastern University's program with other cooperative nursing programs.

77. _____. Personal counseling -- within the realm of the coordinator? Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 46-48.

The author discusses the responsibilities of the cooperative education coordinator. Pratt stresses the need for the coordinator to be properly trained. He believes the coordinator is the key component in the cooperative education program, particularly when it comes to implementation of the program. The author contends that the coordinator must recognize that his responsibilities also include personal counseling of students, a fact not usually recognized.

78. _____. A team theory. Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 39-41.

Pratt describes the basic elements of the team theory. The theory is simply that a member of the coop department's professional staff, probably a coordinator, be assigned to the task of exclusively developing the appropriate coop experiences for a given major field of study, during a given time, and perhaps in a selected geographic region.

79. _____. Toward an identity -- the nature of the cooperative education professional. Journal of Cooperative Education, Vol. X, No. 1 (November 1973), pp. 18-24.

The author discusses the importance of cooperative education as a philosophy of education, and also as an integral part of the academic life of any institution of higher learning. Pratt argues that coop education should not be relegated to any particular subject area but can be related to any subject of interest to the student.

80. Probst, G.E. Cooperative education is first-rate education. PTA Magazine, Vol. 58 (1963), pp. 26-28.

The author discusses cooperative education programs in general -- how they operate, the benefits they offer, scheduling and job placement. Probst deals with the issue of cooperative education making the student too vocation-minded. He describes the types of students cooperative education programs attract.

81. The Professional Internship Exchange Program in Vocational Education. Eastern Washington State College, Cheney. Sponsored by the Bureau of Education Personnel Development (DHEW/OE), Washington, D. C., and the Washington State Coordinating Council for Occupational Education, Olympia. September, 1973. 144 p.

The Professional Internship Exchange Program was designed to provide in-service vocational personnel development in cooperative vocational education. Ten new centers were established under this project. A total of 30 secondary high schools and community colleges throughout the state of Washington have participated in the three-year project. Approximately 500 youths and adults in cooperative programs along with persons with special needs have been served. Micro-teaching devices and micro-simulated decision-making were emphasized throughout the planning workshop. This publication includes complete individual center (school or community college) evaluations from 1970-73. Through this program, teacher coordinators and business/industrial representatives have developed a better understanding of the complex nature of the interaction of work and education. Teacher coordinators have kept abreast of job changes, task analysis, and those areas of occupations which will provide employment for the future.

82. The Professional Internship Exchange Program In Vocational Education, 1971 - 1972. Eastern Washington State College, Cheney. Sponsored by the Office of Education (DHEW) Washington, D. C., and Bureau of Educational Personnel Development, Washington Research Coordinating Unit for Vocational Education, Olympia. 60p.

A total of 10 teacher-coordinators and 10 persons representing business and industrial firms participated in a project designed to provide inservice vocational education, including those persons with special needs. The project design called for: (1) 90 hours of instruction by representatives of the business/industrial firms in K-12 programs, vocational institutes, or community colleges; (2) 90 hours of participation by the teacher-coordinators in the activities of the sponsoring exchange business/industrial firms; (3) a cooperative instruction class for 25 students; and (4) a one-week planning session prior to implementing the program and a three-day evaluation post-session provided by a teacher-training institution. Some project accomplishments were: (1) the business and industrial firms became more aware of the need of serving education and vocational students; (2) 90 hours of special instruction were provided to more than 100 persons involved in cooperative education; (3) an overall awareness for serving persons with special needs resulted in ten centers; and (4) the vocational teaching personnel improved their understanding and appreciation of occupations by being able to gain direct experience in a business or industrial firm. Evaluations of the performance objectives and experiences of the ten exchange teachers and business representatives are included in the description of the project.

83. Ratcliff, H. B. Improving communications among employer, school and student. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 43-45.

The author discusses the art of communication and the various forms of communication within the cooperative education program -- orientation sessions, personal interviews, application forms, work reports, evaluations, etc.

84. Report to the CEA/CED from the Joint Academic Credit Committee, Tampa, Florida. Journal of Cooperative Education, Vol. VII, No. 1 (May 1971), pp. 52-56.

The report indicates a favorable climate exists for the granting of academic credit for work experience. Based on the results of a series of questionnaires dealing with the issue of credit for work experience, the committee supports the idea of credit for work and other off-campus activities on a pass/fail basis.

85. Saline, Lindon E. Cooperative education: foundation on progress. Journal of Cooperative Education, Vol. VII, No. 2 (May 1972), pp. 15-19.

The author discusses how and why cooperative learning can fulfill the aims of the individual and society. He contends that through cooperative education each individual will gain knowledge and understanding of the American system. Saline claims that cooperative education creates a sense of purpose and a willingness to participate responsibly in society in the student. It provides the capability to respond to a societal need and to earn the economic support required for survival. The author claims that each cooperative student will be prepared to cope with constant change.

86. Saunders, Marian. An employer speaks out. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 15-17.

The author discussed student participation in cooperative education programs. She points out the need for student involvement not only with employers but also with their schools, especially when it comes to planning work assignments.

87. Schachter, Jane S. Images and Beliefs of Cooperative and Full-time Liberal Arts Students (Master's thesis). Northwestern University. August, 1971. 270 p.

The effects of participation in a cooperative work program on self-image, educational beliefs, work values, creativity, and academic achievement were studied. The sample was both cooperative and full-time undergraduates who were enrolled in the College of Liberal Arts at Northwestern University during the spring quarter of 1971. The purpose of the study was to see what effects, if any, coop ed might

have on self-image, educational beliefs, work values, creativity, and academic achievement. The study was to explore those areas which may shed some light on the reasons for students either not selecting the coop program or opting out of it.

A total of 144 subjects were randomly selected, 12 subjects for each of the 12 levels of experimental design. The design was a 2x3x2 model. The independent characteristics were status, cooperative and full-time; year, the classes of 1971, 1972, and 1973; and sex, male and female. Measures used in the study were a Semantic Differential to assess self-image, a Q-Sort of education belief statements, the Remote Associates Test to measure creativity, and the Work Values Inventory. The Semantic Differential, which was especially constructed for the study, was comprised of eleven concepts related to cooperative education, work, and the University, each of which was evaluated on sixteen scales. The Q-Sort was also designed especially for the study.

Results showed that cooperative students had a higher degree of complexity of judgement than full-time students who exhibited a greater degree of simplicity. Cooperative students were seen to identify more closely than full-time students with the University, with cooperative education, and with future employment. The educational belief data obtained from the Q-Sort showed that cooperative students, as opposed to full-time students, had a higher degree of complexity of belief structure through the finding of three unique belief factors for cooperative students and no unique factors for full-time students. The results of the analysis of the Work Values Inventory showed that full-time students value supervisory relations and aesthetics higher than do cooperative students. No significant differences were found on the scores of the Remote Associates Test.

The results of the image data and the educational belief data are interpreted in the context of Durkheim's notion of anomie and Erikson's theory of identity confusion.

88. Seaverns, Charles F., Jr. A Manual for Coordinators of Cooperative Education. Northeastern University, Center for Cooperative Education, Boston, Mass. May, 1970. 120 p.

This manual was developed with two specific purposes in mind: (1) to present in some detail, information about cooperative education which should serve as a functional guide to those individuals who contemplate becoming a coordinator of cooperative education, and (2) to stimulate the development of more effective coordination techniques by coordinators already engaged in the placement, counseling, and guidance of cooperative education students. Divided into nine chapters, the guide discusses:

(1) The Rationale of Cooperative Education, (2) The Role of the Coordinator, (3) The Basic Tools Used In Coordination, (4) Strategies for Obtaining Cooperative Jobs, (5) Means of Preparing Students for Placement, (6) The Placement Process, (7) How to Conduct a Follow-up After Placement, (8) Strategies for Handling Student Problems, and (9) Ingredients of a Good Training and Professional Development Program. Several calendar designs and a variety of useful report forms are appended as well as selected readings in the field.

89. Shenker, M. Advisory Committees for Cooperative Education Programs. Trenton State College, Department of Business Education, New Jersey. 68 p.

Instructor-coordinators as well as administrators and program planners should find this guide useful in working with advisory committees on vocational education. Specifically, the purpose of the booklet is to discuss the use of advisory committees in the distributive education and cooperative office education areas. Major sections of the guide are: (1) Introduction, (2) Committee Composition, (3) Organization of Committee, (4) Operation of Committee, (5) Role and Function, (6) Evaluation, and (7) Conclusion. Included in the appendices are an agenda for the initial and regular committee meetings, suggested student recruitment and selection procedures, and information concerning various types of committees and their functions.

90. Stromsdorfer, Ernst W. An Economic Analysis of the Work Experience and Career Exploration Program: 1971-1972 School Year. Final Report. Indiana University, Department of Economics, Bloomington. Sponsored by the Manpower Administration (DOL), Washington, D. C. August, 1973. 248 p.

The educational performance of 690 14 and 15-year old dropout-prone students given limited labor market experience was evaluated in a nationwide study. The students worked 28 hours per week during the 1971-72 school year, which was found to be excessive. Working increased grade point averages up to a point, after which favorable impact declined or became negative. The extent of a career exploration experience and its implications for long-run labor market prospects could not be discerned from the results of the study. The control group did not come from the same population as the program students. Nonresponse bias also makes the impact of the program unclear. A broader extension among the population of students to be served is recommended. Approximately one half of the document is devoted to appendices covering data forms, questionnaires, child labor regulations, and survey analysis tables.

91. _____ and James S. Fackler. An Economic and Institutional Analysis of the Cooperative Vocational Education Program in Dayton, Ohio. Sponsored by the Manpower Administration (DOL), Washington, D. C. August, 1973. 488 p.

This case study examines the economic and institutional impact of cooperative vocational education on the employment, earnings and educational performance of the 1966 and 1970 graduation cohorts of Patterson High School, Dayton, Ohio. The performance of these groups is contrasted with that of students in the comprehensive high schools for the same period. The results of this study, based on mail questionnaire data and complete high school scholastic records, indicate a mixed picture of performance for cooperative education, especially when models employing

multiple regression are used. However, the program is clearly a desirable educational alternative for some high school students. A bibliography of the economic analysis of cooperative vocational education as well as a survey of the methodologies of these studies is included in the analysis.

92. Study of the Effectiveness of a Cooperative Education Program. U.S. Army Missile Command, Redstone Arsenal, Ala. June, 1970. 48 p.

This study was conducted to determine what needs to be done to make work assignments for student trainees in a cooperative education program at the U.S. Army Missile Command interesting and challenging enough to assure the maximum retention of these students as full-time employees when they graduate. A questionnaire and evaluation form was devised and distributed to 79 of the student trainees at all levels of the program. The form was designed to elicit: (1) the relationship between work assignments and the academic phases of the program; (2) the level of work assignments; (3) the students' relationship with supervisors and co-workers; (4) the students' knowledge of the Redstone Arsenal complex and the U.S. Army Missile Command's organizational mission assignments; (5) attitudes of students toward the cooperative program; and (6) students' plans for the future, specifically, immediately after graduation. It was found that (1) nearly half of the students felt that the work needed to be more related to classroom study; (2) one-third of the students do not find their work interesting or challenging; (3) students seem to feel the supervisors are poorly organized in relation to their jobs and that co-workers are more helpful in transmitting knowledge; (4) students' knowledge of the mission assignments and complex seems to be minimal; (5) students seem to be generally satisfied with the cooperative program; and (6) fewer students were planning to stay at the Redstone Arsenal after graduation than hoped for.

93. Support for collegiate cooperative education programs. School and Society, Vol. 98 (1970), p. 399.

The article concerns the awarding of the first federal grants in support of new cooperative education programs to 74 colleges and universities. The grants total $1,540,000. Many of the grants were awarded to schools particularly concerned with educational opportunities for traditionally disadvantaged groups. The article contends that cooperative education programs enable universities to extend to students from educationally and economically deprived backgrounds the opportunity to test their talents. Grants were awarded to 35 predominantly black schools for feasibility studies and planning.

94. Support for work-study projects. School and Society, Vol. 95 (1967), p. 512.

This article concerns the granting of $956,000 by the Ford Foundation for the support of work-study programs. The grants are particularly aimed at providing opportunities for disadvantaged urban and minority groups to pursue a college education. A grant for $355,000 was awarded Northeastern University in order to strengthen the advisory services it provides to other cooperative education programs. The grant provides for the first endowed chair of cooperative education at the university.

95. Thorne, Marian H. Maximum benefits from the cooperative work experience program. Journal of Business Education, May, 1964, pp. 327-329.

The author discusses cooperative education from the standpoint of business educators who feel that coop is desirable "to provide the minimum skills and knowledge necessary for initial job competence as a clerical worker". Thorne describes the program at North Carolina College at Durham, contending that students have opportunities to apply knowledge, and evaluate their work so their performance can be improved early. The author describes various aspects of the program -- course requirements, counseling by coordinators, job opportunities, conferences with cooperating businessmen, evaluation, grading, etc.

96. Tunley, R. Work-study route to a college degree. PTA Magazine, Vol. 63 (1968), pp. 14-16.

The author discusses why cooperative education programs are so popular. He points out the financial benefits, along with issues of relevance and motivation. Most cooperative education programs require an extra year in college, and the author contends it is well worth it. Tunley speculates on why some colleges have not implemented coop programs, citing the traditional European idea that a student needs a cloistered environment in order to learn. The author believes that a university can provide a student with a scholarly environment and still "dip him into life from time to time".

97. Wallace, Harold R. Review and Analysis of Instuctional Materials for Cooperative Vocational Education. Ohio State University, Center for Vocational and Technical Education, Columbus. 1972. 30 p.

Three learning situations found in the cooperative program, namely vocational or technical course work, training stations, and the related class, are described and pertinent curriculum materials are reviewed. In addition to content, the reviewer examines quality and usefulness, validity, enrichment materials and instructional aids, and student involvement and participation, according to criteria which he sets forth in the document. Seven documents designed for a variety of occupational areas, five documents designed for use in a single occupational or vocational field, and 13 periodicals are reviewed.

98. Wenig, Robert E. and William D. Wolansky. Review and Synthesis of Literature on Job Training in Industry. Ohio State University, Center for Vocational and Technical Education, Columbus. 1972. 67 p.

It is imperative that vocational and technical educators study job training programs and policies in industry in order to develop curriculums that will enable students to make a better transition from school to work. The purpose of this paper was to gather pertinent information about

job training efforts in industry so aimed at improving job training programs. Points brought out in the study include: (1) industry was mostly concerned about the increasing number of people-related problems, (2) industry considers cooperative student training as the best type of vocational and technical education for skill development; and (3) large industries are making great progress in improving job training through the use of the systems approach and better evaluation strategies. Major sections of the report include: (1) Factors Influencing Job Training in Industry, (2) The Description of Job Training in Industry, and (3) The Synthesis of Selected Job Training Programs in Industry.

99. White, W. C. The cooperative plan in the depression. School and Society, Vol. 37 (1933), pp. 65-67.

The author describes the cooperative program in the schools of engineering and business administration at Northeastern University during the depression. In 1932, 54 percent of the students were placed in cooperative positions, compared to 94-100 percent in normal times. Other students were placed in temporary positions and in positions created by the university. No tuition was charged while a student was at work. The author believes that student morale was high despite difficult times and that the cooperative plan proved its capacity to endure the rigors of the nation's worst depression.

100. Wilson, James W. Cooperative education and degree credit. Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 28-38.

This report seeks to accomplish three goals: first, to provide a clear description of current practices regarding credit for coop ed work experiences and the reasons behind decisions to grant credit; second, to summarize the principal concerns and most frequently voiced objections to granting credit; and third, to propose a rationale for awarding credit, and to explore implications of that rationale.

101. _____. Federal funding for cooperative education: report and suggestions. Journal of Cooperative Education, Vol. VII, No. 2 (May 1971), pp. 43-49.

The author outlines the expansion of the university and programs of cooperative education in the 1960's. Wilson questions if the national economy will be able to absorb all of the cooperative education students and fears that jobs are lost because of mismanagement and ill-conceived programs. The author is concerned that the source of funding for cooperative education is the college work study program and claims that funds six to ten times the amount available are needed. Wilson notes that as long as cooperative education is a part of work study programs, there will be confusion as to its essential character. Some suggestions are offered, including a suggestion that the Office of Education develop a plan to demonstrate the educational importance and value of cooperative education.

102. _____. Reflections on what a coordinator is. Journal of Cooperative Education, Vol. VIII, No. 2 (May 1972), pp. 57-61.

The author discusses the functions performed by cooperative education coordinators. Wilson describes these functions as so diverse that together they represent an "awesome conception of what a coordinator is". Wilson concludes his article with his definition of what a coordinator should be.

103. _____. Study of cooperative education. School and Society, Vol. 88 (1960), p. 399.

This is a report of a study of cooperative education funded by the Fund for the Advancement of Education. In particular, the study was concerned with the educational effectiveness of cooperative education. Wilson studied graduates of five classes from 22 cooperative and 16 non-cooperative college programs. He concludes that important educational benefits are provided by coop programs. Some recommendations complete the article.

104. Wilson, Roger John. An Investigation of Factors Essential to Selecting and Preparing On-the-Job Trainers for a Post-Secondary Cooperative Vocational-Technical Education Program (Ph. D. dissertation). Ohio State University, 1970. 153 pp.

By passing the 1968 Vocational Education Act with its special provisions for cooperative education, Congress has highlighted the value and rapid growth of on-the-job programs. However, with this increased emphasis on cooperative education comes the need for investigating the present practices of selecting and preparing the on-the-job trainer assigned to a student-learner. For the most part data for the study was gathered by reviewing related literature and visiting a sample of nine 2-year institutions to interview teacher coordinator. An analysis of the interview findings led to the conclusion that the selection of the on-the-job trainer was under the control of the teacher-coordinator through his approval or disapproval of the cooperating employer. It was also concluded that the on-the-job trainer was given little if any planned preparation before he undertook his teaching task. A significant recommendation of this study is that teacher-coordinators must take advantage of their responsibility and position to control the selection and preparation of the on-the-job trainers.

105. Wooldridge, Roy L. Analysis of Student Employment in a Co-operative Education Program. Northeastern University, Center for Cooperative Education, Boston, Mass. November, 1972.

The author attempts to answer questions regarding the types of employers and available jobs for coop students. This study is based upon an analysis of cooperative assignments in 40 full-time undergraduate curricula at Northeastern University during the winter and spring terms of the 1972 academic year. Over 8,200 students were involved in the study and represented the Colleges of Engineering, Business Administration, Liberal Arts, Education, Pharmacy, Nursing, Boston-Bouve, and Criminal Justice. After an initial historical view of the coop education program --

both in the United States and at Northeastern -- coop students at each of these eight undergraduate schools were isolated for study. The first task was to identify the employers for all students within these schools and then to illustrate the types of employers for students within that major. The second task was to classify the type of work performed by the individual student on his cooperative assignment. The data on the types of work was separated by the year -- primarily sophomore and senior years -- in order to provide some detail on starting job and final job assignments. Some of the findings are summarized as follows:

- The rationale for cooperative employment for engineering students was recognized early. Placements were easily obtained during the years when engineers were in short supply. Although demand has fallen, placements have remained high.

- Starting jobs for Business Administration students are often trainee types. Some students tend to remain on this level by changing employers to obtain various experiences; others advance in responsibility through stable employment.

- Liberal arts (humanities) students, frequently without firm vocational objectives, need more flexibility to permit short-term jobs to reflect a student's development.

- Liberal arts (science) coop students with graduate school goals are frequently placed in research and development work.

- Preparation of teachers has traditionally included work-study. A problem is the fact that this has not been paid work. School budgets are tight, and educators not used to budgeting for coop positions makes opportunities few.

- In the College of Pharmacy, and related areas, students are employed in career-oriented jobs. Assignments are available, with more jobs than students to fill them.

- Coop ed is ideal for nursing students. It is career-related and compatible with academic training.

- Boston-Bouve (physical education and therapy) offers beginning jobs in administrative positions, but subsequent jobs are career-related.

- There is a paucity of career-related jobs in Criminal Justice, so students are frequently employed on routine assignments (messengers, clerical). Public sector jobs must be planned for one year in advance because of budget considerations. There is a need for expanded opportunities.

106. _____. Cooperative education today: a reassessment. Journal of Cooperative Education, Vol. IX, No. 2 (May 1973), pp. 19-23.

The author believes that the coop schools are increasingly becoming a source of those human resources necessary to operate and to manage the economic apparatus of the nation; and unless mankind reverts to a primitive existence, our technology education is a social invention that has come of age at this time of search for new directions in education and for a new means to cope with the problems of a highly technological society.

INDEX

Goals and Objectives 1, 4, 6, 10, 21, 22, 23, 24, 25, 26, 29, 34, 36, 43, 47, 49, 50, 52, 55, 67, 71, 74, 80, 85, 95, 96, 106

The Student and Cooperative Education 12, 25, 26, 28, 36, 44, 54, 56, 71, 80, 87, 91

Institutions and Cooperative Education 14, 15, 20, 38, 45, 46, 48, 63, 79, 82, 97

Employers and Cooperative Education 6, 50, 75, 86, 98, 105

History and Recent Trends 5, 7, 8, 10, 35, 58, 69, 99

Program Descriptions 19, 21, 22, 27, 31, 33, 37, 43, 49, 52, 70, 72, 74, 76, 81, 82, 91

Program Development 13, 28, 29, 30, 31, 32, 38, 46, 48, 59, 60, 62, 66, 88

The Role of the Coordinator 1, 11, 13, 14, 17, 48, 63, 68, 77, 78 88, 102, 104

Academic Credit for Work Experiences 6, 65, 84, 100

Cooperative Education in Non-traditional Fields 9, 39, 64, 79

Funding for Cooperative Education 6, 15, 32, 40, 93, 94, 101

Equal Opportunity and Cooperative Education 6, 18, 23, 53, 54, 70, 73

Evaluations and Assessments 3, 12, 19, 21, 22, 23, 24, 27, 41, 42, 44, 45, 49, 52, 56, 74, 81, 82, 87, 90, 91, 92, 103, 104, 105, 106

Handbooks, Manuals and Guidelines 1, 2, 13, 15, 16, 17, 28, 29, 30, 31, 38, 42, 46, 48, 51, 57, 59, 60, 61, 66, 88, 89

Voluntary versus Mandatory Programs 19, 27

## LIST OF PERIODICALS UTILIZED

Journal of Cooperative Education

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Journal of Business Education

Educational Leadership

Daedalus

Business Education Forum

PTA Magazine